

- 1 **Q. (Reference Application, 2025 – 2029 Capital Plan, page 1) It is stated “The**
 2 **Company is forecasting the replacement of thermal generation units at**
 3 **Greenhill, Wesleyville, and the start of engineering to replace the thermal**
 4 **generation units in Port aux Basques over the next five years. These units**
 5 **have been in service approximately 50 years and have reached the end of**
 6 **their useful service lives. The replacement of these units is forecast to**
 7 **account for approximately \$96 million from 2027 to 2029.”**
 8 **a) Please explain how replacement of these thermal generation units is**
 9 **consistent with the provision of least cost power in an environmentally**
 10 **responsible manner and government net-zero emissions efforts.**
 11 **b) Please provide the following annual data on each of the Greenhill,**
 12 **Wesleyville and Port aux Basques thermal generation facilities:**
 13 **generation, operating hours, operating cost, fuel cost, capital**
 14 **expenditures, emissions, and contribution to NP’s earnings. Also, please**
 15 **indicate the capacity of each and any changes in capacity over the time**
 16 **period.**
 17 **c) What were the original rationales for putting each of these thermal units**
 18 **in place?**
 19 **d) In light of existing and proposed ‘green energy’ initiatives by the**
 20 **governments of Canada and Newfoundland and Labrador, has NP analyzed**
 21 **the possibility that capital expenditures on these and other thermal units**
 22 **may become stranded? If so, please provide copies of all such analyses**
 23

- 24 **A. a)** Capital expenditures related to the proposed replacement of thermal generation
 25 units have not been submitted to the Board for approval. Newfoundland Power will
 26 submit any proposed expenditures for Board approval through the regular capital
 27 budget process to ensure they are in the best interests of customers.
 28

29 The proposed thermal units are planned to provide isolated generation during
 30 transmission outages, voltage and frequency support, and system support to ensure
 31 reliability during times of renewable generation shortages.
 32

33 The Government of Canada’s draft Clean Energy Regulations recognize that
 34 combustion turbines will play a role in achieving net zero.¹ They provide fast,
 35 dispatchable power during renewable generation shortfalls to ensure system
 36 stability. In addition, the draft Clean Electricity Regulations pertain to fossil fuel
 37 burning electric generation facilities that are 25MW or greater and connected to the
 38 NERC – regulated electricity system. The capacity of each of Newfoundland Power’s
 39 thermal generation facilities is below this threshold.

¹ The final regulations are expected to be published later in 2024. See Government of Canada (n.d.).
Clean Electricity Regulations. Retrieved August 22, 2023 from
<https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/clean-electricity-regulation.html>.

1 b) See Attachment A for the requested information for the past 10 years.

2
3 Newfoundland Power is unable to provide the emissions of the units as no units have
4 emissions monitoring equipment. Newfoundland Power also is unable to provide the
5 contribution of each facility to earnings as the Company does not track the
6 contribution of individual assets to earnings.

7
8 The capacity of each generator is provided as Table 1 below. No changes have
9 occurred to the capacity of the generators in the past 10 years.

Table 1: Capacity By Generation Facility	
Facility	Capacity (MW)
Greenhill	20.0
Wesleyville	8.0
Port Aux Basques Diesel	2.5
Mobile Gas Turbine ²	6.0

10 c) The original rationale for putting each of the thermal units in place was to ensure
11 system reliability relating to peak load, voltage/frequency support and the ability to
12 run isolated systems in the event of transmission line failures on radial transmission
13 line systems.

14
15 d) See part a). Newfoundland Power observes that the Government of Canada's draft
16 Clean Energy Regulations recognize that combustion turbines will play a role in
17 achieving net zero. They provide fast, dispatchable power during renewable
18 generation shortfalls to ensure system stability. The most recent timeline from the
19 Government of Canada indicates that final regulations will be published in the
20 Canadian Gazette later in 2024.

21
22 As these projects are not currently being proposed for approval, no detailed analysis
23 to study the possible stranding of these assets has been completed. During the
24 engineering phase a detailed analysis will be completed to determine all required
25 capabilities for each combustion turbine. Compliance with legislation will be ensured
26 at that time.

² Mobile Gas Turbine is no longer in road worthy condition and has been parked in Grand Bay Substation in Port aux Basques consistent with the recommendations of report *1.2 Purchase Mobile Generation*, which was filed in connection with the Company's *2018 Capital Budget Application*.

ATTACHMENT A:

Operating and Capital Information for Wesleyville, Greenhill, Mobile and Port aux Basques Thermal Generation Facilities.

Table 1: Greenhill Gas Turbine Operating Data					
Year	Generation (MWH)	Hours Operated	Operating Cost (\$000)	Fuel Cost (\$000)	Capital Expenditures (\$000)
2023	253	22	134	128	18
2022	86	10	99	38	57
2021	236	17	86	70	23
2020	139	14	71	47	7
2019	203	18	109	68	6
2018	515	70	93	188	-
2017	956	64	167	241	-
2016	1223	76	74	293	708
2015	441	60	64	178	36
2014	1782	132	116	758	390

Table 2: Wesleyville Gas Turbine Operating Data					
Year	Generation (MWH)	Hours Operated	Operating Cost (\$000)	Fuel Cost (\$000)	Capital Expenditures (\$000)
2023	101	15	83	66	56
2022	60	13	77	36	-
2021	93	19	86	40	20
2020	92	17	108	54	9
2019	96	14	48	40	47
2018	265	51	97	117	125
2017	823	154	192	284	93
2016	112	19	50	36	253
2015	113	23	41	63	177
2014	283	42	62	146	1265

Table 3: Port Aux Basque Diesel Data					
Year	Generation (MWH)	Hours Operated	Operating Cost (\$000)	Fuel Cost (\$000)	Capital Expenditures (\$000)
2023	42	27	35	14	57
2022	68	37	40	16	-
2021	23	16	31	6	-
2020	109	72	34	26	-
2019	28	15	29	9	-
2018	71	42	39	19	28
2017	60	33	42	13	-
2016	90	72	45	20	-
2015	32	19	62	9	-
2014	74	44	83	21	210

Table 4: Mobile Gas Turbine Data					
Year	Generation (MWH)	Hours Operated	Operating Cost (\$000)	Fuel Cost (\$000)	Capital Expenditures (\$000)
2023	65	24	36	56	16
2022	124	62	93	96	46
2021	28	12	52	18	-
2020	169	88	53	107	-
2019	233	84	76	131	8
2018	163	54	74	88	-
2017	154	64	99	68	20
2016	445	88	125	146	40
2015	1160	338	256	600	-
2014	961	196	76	146	21